
A DISCOURSE tending to prove at what Time and Place, Julius Cefar made his first Descent upon Britain : Read before the Royal Society by E. HALLEY.

THough *Chronological* and *Historical* Matters, may not seem so properly the Subject of these Tracts, yet there having, in one of the late Meetings of the *Royal Society*, been some discourse about the Place where *Julius Cefar* Landed in *Britain*, and it having been required of me to shew the Reasons why I concluded it to have been in the *Downs* ; in doing thereof, I have had the good fortune so far to please those worthy Patrons of Learning I have the honour to serve, that they thought fit to command it to be inserted in the *Philosophical Transactions*, as an instance of the great Use of *Astronomical Computation* for fixing and ascertaining the Times of memorial Actions, when omitted or not duly delivered by the Historian.

I. The Authors that mention this Expedition with any Circumstances, are *Cefar* in his *Commentaries lib. 4.* and *Dion Cassius in lib. 39*; *Livy's* account being lost, in whose 105th Book, might possibly have been found the story more at Large. It is certain that this Expedition of *Cefar's*, was in the Year of the *Consulate* of *Pompey*, and *Crassus*, which was in the Year of Rome 699. or the 55th. before the usual Era of Christ : and as to the time of the year, *Cefar* says that *Exiguâ parte æstatis reliquâ*, he came over only with two Legions, viz. the 7th. and 10th, and all Foot, in about 80 Sail of Merchant

chant Ships, 18 Sail that were ordered to carry over the Horſe, not being able to get out at the ſame time from another Port, where they lay Wind-bound. He ſays that he arrived about the Fourth hour of the Day, viz. between Nine and Ten in the Morning, on the Coaſt of *Britain*, where he found the Enemy drawn up on the *Cliffs* ready to repel him, which place he thus deſcribes; *Loci hæc erat natura, adeo montibus anguſtis mare contenebatur ut ex locis ſuperioribus in littus telum adjici poſſit*, by which the *Cliffs* of *Dover* and the *South Foreland*, are juſtly deſcribed, and could be no other Land, being he ſays in the 5th. Book of his Commentaries, *in Britanniam trajectum eſſe cognoverat circiter millium paſſuum triginta à continenti*, the *Cliffs* of the *North-Foreland* being at a much greater diſtance. Here he ſays he came to an Anchor, and ſtaid till the 9th. hour, or till about between Three and Four in the Afternoon, expecting till his whole Fleet was come up; and in the mean time called a Council of War, and advertiſed his Officers, after what manner they were to make their Deſcent, particularly in relation to the Surf of the Sea, whoſe motion he calls *celerem atq; inſtabilem*, quick and uneven. Then, viz. about Three in the Afternoon he weighed Anchor, and having gotten the *Wind* and *Tide* with him, he Sail'd about Eight Miles from the firſt place, and Anchor'd againſt an open and plain Shore.

2. Here he made his Deſcent, and having told us the oppoſition that was made, and the means he uſed to get on ſhore, he comes to ſay, that after he had been *Four Days* in *Britain*, the 18 Ships with his Horſe put to Sea; and were come in fight of his Camp, when a ſudden Tempeſt aroſe, with contrary Wind, ſo that ſome of the Ships put back again, others were driven to the Weſtwards, not without great danger, and coming to Anchor, they found they could not ride it out: ſo when Night came on, they put off to Sea and returned

ed from whence they came. *That same Night* it was *Full-Moon*, which makes the greatest Tides in the Ocean, and they being ignorant thereof, their Gallies, which were drawn on shore, were filled by the Tide, &c.

3. Then he says that the day of the Autumnal Equinox being at hand, after some days stay, wherein there passed no Action because he kept close in his Camp by the shore; and not thinking it proper to stay till the Winter came on, he returned into *Gallia*: The next year he made a further Expedition with 5 Legions and a good Body of Horse, but there is but little in the History thereof serving to our purpose, excepting that he says he set Sail from the *Portus Icius* about Sun-Set, with a gentle S. W. Wind, *leni Africo profectus*; that about Midnight it fell Calm, and being carried away with the Tide, by the time it was day, he found he had left *Britain* on the left hand; but then the Tide turning, they fell on their Oars, and by noon reached that part of the Island where he Landed before, and came on shore without opposition, and then marched up into the Country, leaving his Ships at Anchor in *littore molli* & aperto.

4. This is all in *Cesar* that is any thing pertinent, and I find no where else any thing to guide us farther, except one passage in *Dion Cassius*, who speaking of the first Landing of *Cesar*, says εἰ μὲντοι καὶ ἡ εἶδα προσέειπεν, that is, as I Translate it; But he Landed not where he intended, for that the *Britains* hearing of his coming, had possessed all usual places of Landing, ἄνεον οὖν τινα προσέχουσιν ἀλιπλόους ἐτέρωσε παρεχόμενοι. Κ' ἀνταῦθα τὸς προσμύξαντας οἱ ἐς τὰ πέραν διπλοῦντι νέκυσας, ἐφ' ἣν τῆς γῆς κρατήσας; in my English; Wherefore doubling a certain head Land, he made to the shore on the other side, where he overcame those that Skirmished with him at the waters edge, and so got well on Land.

Land. Here I make bold to translate the Words *ἐς τὴν παράλιν*, at the waters edge, which in *H. Stephens* Edition is interpreted in *paludibus*; but I have the Authority of *Suidas*, who says *τὴν ἀγρὸν πελαγίαν ἰλὺς*, or the Sea Mud, and is therefore properly the Ouse on the Sea Shore, and by an easie Figure may be put for the shore itself, where such Ouse commonly is found.

5. From these *data*, That it was in the Year of the Consulate of *Pompey*, and *Crassus*; That it was *Exiguâ parte æstatis reliquâ*, and Four Days before a Full-Moon, which fell out in the night time, the time of this Invasion will be determined to a day: For by the Eclipse of the Moon, whereof *Drusus* made so good use to quiet a Mutiny in the *Pannonian Army*, upon the News of the Death of *Augustus*, it follows that *Augustus* Died *Anno Christi* 14. which was reckoned *Anno Urbis conditæ* 767. and that this Action was 68 Years before, *viz.* in the 55th. Year before Christ Current. In which Year the Full Moon fell out *August* 30. after Midnight, or 31 in the Morning before day; and the preceeding Full-Moon, was *August* 1. soon after Noon; so that this could not be the Full Moon mentioned, as falling in the day time: nor that in the beginning of *July*, it being not 10 days after the Summer solstice, when it would not have been said *exiguâ parte æstatis reliquâ*. It follows therefore that the Full Moon spoken of, was on *August* 30. at Night, and that the Landing on *Britain* was *August* 26. in the Afternoon, about a Month before the Autumnal equinox; which agrees to all the Circumstances of the Story in point of Time.

6. As to the Place, the high Land and Cliffs described, could be no other than those of *Dover*, and are allowed to have been so by all, it remains only to examine whether the descent was made to the Northward or Southward of the place where he first Anchored. The *data* to determine this, are first that it was Four days before

before the Full Moon. 2. That that day by Three of the Clock in the Afternoon the Tide ran the same way he Sail'd. 3dly. That a S. by E. Moon makes High-Water on all that Coast, the Flood coming from the Southward: hence it will follow, that that day it was High-water there about Eight in the Morning, and consequently Low-water about Two, whereof by Three the Tide of Flood was well made up, and it is plain that *Cesar* went with it, and the Flood setting to the Northward shews that the open Plain shore where he Landed was to the Northward of the Cliffs, and must be in the *Downs*; and this I take to be little less than Demonstration. A second argument is drawn from the Wind wherewith he set out on his second Expedition, viz. S. W. as appears by the words *leni Africo Profectus*, with which the Navigation of those times would hardly permit a Ship to Sail nearer the wind than eight Points, or a N. W. Course; which would serve indeed to go into the *Downs*, but would by no means fetch the Lowland towards *Dengynefs*, which is much about West from *Calais*, and not more than W. N. W. from *Boulogne*, if it shall be said that that was the *Portus Icius* from which *Cesar* set out. Whence I take it to be evident that if *Cesar* was not bound more Northerly than the *South-Foreland*, he could not have thought the *Africus* or S. W. Wind proper for his passage, which was then intended for the place where he first Landed the year before.

7. Justly to determine which the *Portus Icius* was, I find no where sufficient grounds; only *Ptolemy* calls the Promontory of *Calais-Cliffs* by the name of Ἰλιον ἄκρον, whence there is reason to conjecture, that the *Portus Icius* was very near thereto, and that it was either *Ambleteuse* on the one side, or *Calais* on the other. The same *Ptolemy* places Γισσὸρβίανον ἑρρίκειον in the same Latitude with the Ἰλιον ἄκρον, but something more to the East, which seems to refute those that have supposed the an-

cient Port of *Gessoriacum* to have been *Boulogne*, whereas by *Ptolemy's* position, it must be either *Dunkirk* or *Graveling*, but the former most likely, both by the distance from the Ἰων ἄκρον, being about 20 Miles or half a degree of Longitude to the East, or $\frac{2}{3}$ of the whole Coast of *Flanders*, which he makes but a degree and quarter from the *Acron Icion* to the mouth of the *Scheld* which he calls *Ostria Tabudæ*: as also for that *Pliny* l. 4. c. 16. speaking of *Gessoriacum*, says the *Proximus Traiectus* into *Britain*, from thence is 50 Miles, which is too much unless *Gessoriacum* were something more Easterly than *Calais*: *Dion Cassius* makes the distance between *France* and *Britain* 450 *stadia* or 56 Miles, and says likewise 'tis the nearest, τὸ συντομώτατον. But this is in part amended by the explication given in the *Itinerary* of *Antoninus*, where the space between *Gessoriacum* and *Rutupium* is said to be 450 *stadia*, (for this was the ordinary passage of the *Romans* into *Britain*,) *Rutupium* being more Northerly and *Gessoriacum* more Easterly than the *termini* of *Cesar's* Voyage, and consequently the distance greater than 30 Miles, which *Cesar* had observed: and now lately an accurate Survey has proved the distance between Land and Land to be 26 *English Miles* or 28½ *Roman Miles*, which shews how near *Cesar's* estimate was to the truth.

A farther Argument (but not of equal force with the former, because of the modernness of the Author, who writ above 250 years after) may be drawn from the words of *Dion Cassius*, where he says ἀπὸ τινὸς πελάγους ἐτέρωσε παρενομίᾳ, that after his first Anchoring he Sailed about a Promontory to the place where he Land-
ed: now there are no other Promontories on all that Coast but the *South-Foreland* and *Dengyness*; the latter of which it could not be, because *Cesar* says he Sail'd but 8 miles, and the *Ness* it self is about 10 Miles from the South and nearest end of the *Chalk-Cliffs* by the Town of

of *Hithe*; and to have gone round that Point to the other side, the distance must have been much greater. So that the Promontory spoken of by *Dion*, must needs be the *South-Foreland*, and *Cesar* must Anchor near over against *Dover*, from whence Sailing 8 Miles, he would double a Head-land and come to the *Downs*; which is such a Coast as he describes in one place by *apertum ac planum littus*, and in his 5th Book by *molle ac apertum littus*. As to *Dion's* word εἰς τὰ τεράγη, what I have already said about it seems sufficient to prove that he means no more than the waters edge, and the *Etymologists* derive it from τέγω *maefacio*, because the wash and breach of the Sea does always keep it wet. And this word τὰ τεράγη is used by *Polybius* for the Sea Ouse; and in another place he speaks of the difficulty of Landing at the mouth of a River διὰ τὸ τεράγῳδι πάροδον, *ob limosum accessum*, so that it is not to be doubted that it ought to be rendred in this place, *ad vadum maris* rather than *in paludibus*. And so this objection against the assertion that *Cesar* Landed in the *Downs*, which is known to be a firm Champain Country without Fens and Morasses, will be removed; and the whole Argument will 'tis hoped be admitted by the Curious.

A Receipt for the Curing of Castorium, according to the method us'd in Russia.

TAKE the Beaver Stones and get the Milk out of them as clear as you can, then set upon the Fire a Skillet or Kettle with water, big enough to contain the quantity of Stones you have to cure: let the water Boil, and put into it half a shovel full of clean Wood Ashes, then tie the Stones together in couples and put them into the water, and let them Boil therein for half a quarter of an Hour. Then take some Birch-Bark and lay it on